Protocol for Tranexamic Acid in Trauma Patients

Dated Monday 11/04/2012

Overview

The CRASH-2 trial showed reduced overall mortality from the use of Tranexamic acid (TXA) in trauma; out of 20127 patients enrolled (TXA given up to 8h) all cause mortality was reduced from 16.0% (placebo) to 14.5% (TXA, RR 0.91 p=0.0035, NNT=67). Later subgroup analysis showed better results if given sooner, but significantly increased mortality above 3 hours. To prevent a death from bleeding NNT=42 (given within 1h) or NNT=52 (given with 3h). There was no increase in thrombosis.

Indications

All trauma patients, appearing to be at least 16 years old, with ongoing significant haemorrhage (systolic blood pressure less than 90 mmHg and/or heart rate more than 110 beats per minute), or who are considered to be at risk of significant haemorrhage (eg those you would G&S or Xmatch), and are within 3 hours of the injury. Note that this would exclude isolated head injuries.

Relative Contra-Indications

Evidence of disseminated intravascular coagulation
Past history of thrombotic disorder such as DVT or PE
Known thrombophilia

Administration

The robot stores 12 vials of Tranexamic acid (Cyclokapron) 100mg/ml, 5ml vials.
The dose is 1g tranexamic acid in 100ml normal saline over 10 minutes (or by slow push) on arrival, then 1g Tranexamic acid in 500ml normal saline over 8 hours.

Notes

Tranexamic acid use is independent of the massive transfusion protocol.
The usage of tranexamic acid in the UK is being monitored through the TARN system.
BNF price is £6.20 for 2g ie £320 to save a life from bleeding in trauma.
Tranexamic acid is not indicated in the initial management of subarachnoid haemorrhage (GEMNet 2009, Grade A recommendation based on level 1b studies).

References

CRASH-2 http://www.lancet.com/crash-2-2010
CRASH-2 subgroup analysis http://www.lancet.com/crash-2

Richard Pearson 22/06/2015